
BRI/PRI Basic Call Interworking

Overview

BRI/PRI Basic Call Interworking provides data connectivity between ISDN BRI and ISDN PRI. It does the following:

- allows better high- and low-level compatibility checking between the calling and terminating equipment
- supports the V.120 protocol between BRI TEs over PRI
- supports a greater range of Bearer Capability, which is the network data transmission rate
- allows end users to support many terminals on the same BRI DSL, such as Group IV fax, data monitor
- propagates existing IEs with existing encodings over tandem PRIs between BRI TEs

The affected IEs are:

- Bearer Capability
BRI and PRI propagate octet 4ab without modification.
- Called party subaddress
Meridian 1 decodes and saves the called party subaddress when it is received from PRI, passing it to the terminating BRI. The system also sends the subaddress to PRI when the originating BRI or PRI includes it.
- Calling party subaddress
Meridian 1 decodes and saves the calling party subaddress when it is received from PRI, passing it to the terminating BRI. The system also sends the subaddress to PRI when the originating BRI or PRI includes it.

- Cause
BRI and PRI propagate octet 4 without modification.
- High layer compatibility
Meridian 1 decodes and saves high-layer compatibility information received from PRI and passes it to the terminating BRI. The system also sends the information element, without interpreting it, to PRI after receiving it from the originating BRI or PRI.
- Low layer compatibility
Meridian 1 decodes and saves low-layer compatibility information received from PRI and passes it to the terminating BRI. The system also sends the information element, without interpreting it, to PRI after receiving it from the originating BRI or PRI.

BRI/PRI supports these interfaces:

- Meridian 1 PRI
- Japan D70 PRI
- 4ESS and 5ESS PRI

Operating parameters

New IEs and IEs with new encodings are only supported when the RCAP is configured in LD 17. Existing IEs and encodings are supported end-to-end regardless of the RCAP value.

A call with new Bearer Capability encodings will only terminate to a BRI terminal. If the terminating terminal is not a BRI terminal, the call is blocked.

Voice calls are successful between BRI and PRI with no restrictions.

Feature interactions

The following feature interactions are unique to BRI/PRI basic data call interworking.

- ISDN BRI Data Call
Added IEs (such as LLC and HLC) and the expanded set of supported data values for the Bearer Capability IE enhance BRI's ability to support a variety of circuit switched data calls.
- ISDN PRI D-channel Error Reporting and Monitor
The DCH table supports the new IEs in the PRI call messages. The DCH monitor displays the new IEs and a label for monitor level 2.
- Incoming Digit Conversion
If an incoming SETUP message with the new Bearer Capability encodings goes through incoming digit conversion, it must be translated to a BRI DN. If the terminating DN is not a BRI DN, the call will be blocked.
- Network Alternate Route Selection
If an outgoing call contains a SETUP with a new Bearer Capability encoding, it can only be terminated on PRA/ISL trunks with RCAP configured. This means that at least one entry in the RLB must be PRA/ISL and have the DCH RCAP configured for BRI. NARS will continue to search the RLB until it finds RCAP=BRI. An outgoing call is blocked if RCAP is not configured, or if all trunks with RCAP configured are busy.

Feature packaging

BRI/PRI, as a feature, has no packaging requirements. However, the requirements for ISDN BRI and ISDN PRI must be met.

Feature implementation

Procedure 12

Use LD 17 to configure far-end BRI support

Prompt	Response	Description
REQ	CHG	Change system data
TYPE	CFN	Configuration record
ADAN	CHG DCH X	
CTYP		
DNUM		
SIDE		
RLS	19	Release ID of the switch at the far end of the D-channel interface is Meridian 1
RCAP	BRI XBRI	Add far-end BRI support Remove far-end BRI support
Valid only for IFC=SL1, D70, ESS4, ESS5		

Procedure 13

Use LD 22 to print the configuration record

Prompt	Response	Description
REQ	PRT	Print system data
RCAP	BRI	Far-end BRI support
Valid only for IFC=SL1, D70, ESS4, ESS5		

Feature operation

This feature operates in the background according to how the BRI TEs are configured and the RCAP value in LD 7.